

Applic. No. 10/803,853

Amdt. dated January 20, 2006

Reply to Office action of September 20, 2005

*CONFIDENTIAL*  
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Claim Amendments

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (currently amended): A threaded pin for connecting into a socket formed with an internal thread, the pin comprising:

a substantially solid pin body of carbon material having a central axis, first and second end portions, a midplane defined between said end portions, and an external thread; and said pin body having ~~[[a]]~~ an integral protrusion formed thereon for forming an abutment surface extending radially beyond said external thread and facing towards one of said end portions.

Claim 2 (original): The threaded pin according to claim 1, wherein said pin body is formed to connect carbon electrodes formed with at least one socket having the internal thread.

Claim 3 (original): The threaded pin according to claim 1, wherein said abutment surface forms part of a flange integrally formed on said pin body.

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Claim 4 (currently amended): ~~The threaded pin according to claim 1, which comprises~~ The electrode assembly according to claim 18, wherein said pin has a retaining nut formed with an internal thread meshing with said external thread of said pin body, ~~and wherein said abutment surface is formed on said~~ retaining nut.

Claim 5 (original): The threaded pin according to claim 4, wherein said retaining nut is formed of graphite.

Claim 6 (original): The threaded pin according to claim 4, wherein said retaining nut is formed of a polymeric material.

Claim 7 (original): The threaded pin according to claim 6, wherein said polymeric material is polyphenylenether.

Claim 8 (original): The threaded pin according to claim 1, wherein at or in a vicinity of said midplane, said first end portion has a smaller diameter than said second end portion, said abutment surface is formed as a protruding annular surface of said second end portion, and said abutment surface faces in a direction of said first end portion.

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Claim 9 (original): The threaded pin according to claim 1, wherein at least one of said first and second end portions has a conical portion formed with said external thread.

Claim 10 (original): The threaded pin according to claim 9, wherein at least one of said first and second end portions has a cylindrical portion formed between said midplane and said conical portion.

Claim 11 (previously presented): The threaded pin according to claim 10, wherein said abutment surface extends substantially perpendicularly and adjacent to said cylindrical portion.

Claim 12 (original): The threaded pin according to claim 10, wherein said thread is formed with windings on said conical portion, and said windings have a reduced height in a portion thereof, defining said cylindrical portion.

Claim 13 (original): The threaded pin according to claim 10, wherein said cylindrical portion is formed as a reduction in a diameter of said conical portion.

Claim 14 (currently amended): An electrode assembly, comprising:

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two electrodes of carbon material each formed with a  
respective socket having an internal thread and a bottom end;

a substantially solid pin of carbon material formed with an  
external thread and two end portions for connecting said two  
electrodes to form an electrode column;

at least one of said electrodes and said pin each having an  
abutment surface configured to come into contact with the  
respectively other said abutment surface when said pin is  
screwed into said socket, before said end portion of said pin  
reaches said bottom end of said socket, said abutment surface  
of said pin being defined on a protrusion formed on one of  
said two end portions, and said protrusion projecting radially  
beyond said external thread.

Claim 15 (previously presented): The electrode assembly  
according to claim 18, wherein said electrode is one of two  
electrodes each formed with a respective socket, and said pin  
is formed with two end portions for connecting said two  
electrodes to form an electrode column.

Claim 16 and 17 (cancelled).

Claim 18 (currently amended): An electrode assembly,  
comprising:

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an electrode of carbon material formed with a socket having an internal thread and a bottom end;

a substantially solid pin of carbon material formed with an external thread for connecting to said electrode and an end portion;

said electrode and said pin each having an abutment surface configured to come into contact with the respectively other said abutment surface when said pin is screwed into said socket, before said end portion of said pin reaches said bottom end of said socket, said abutment surface of said socket adjoining a recessed portion of said socket, and said abutment surface of said pin being defined on a protrusion formed on said end portion, and said protrusion projecting radially beyond said external thread.

Claim 19 (original): The electrode assembly according to claim 14, wherein said end portion of said pin is formed with a substantially cylindrical portion adjacent said abutment surface of said pin.

Claim 20 (previously presented): The electrode assembly according to claim 18, wherein said external thread of said pin and said internal thread of said socket have thread windings with a substantially uniform lead, a root, a crest,

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and a substantially V-shaped profile, wherein at least one of said internal and external threads is formed with a wedge ramp at said root, and wherein said crests of a respectively other thread abut against said wedge ramps when said pin is screwed into said socket.